



**Common Commodities
Management System (CCMS)
Corporate Engineering
Utilization (EU) Council
Initiative**

April 20, 2010

Director, Strategic Operations
Corp Project Lead - CCMS Initiative

Defense Standardization Program Office
Parts Standardization & Management Committee
2010 Spring Conference

Five Operating Sectors

Aerospace Systems



Large Scale Systems Integration

C⁴ISR

Unmanned Systems

Airborne Ground Surveillance / C2

Naval BMC2

Global / Theater Strike Systems

Electronic Combat Operations

ISR Satellite Systems

Missile Defense Satellite Systems

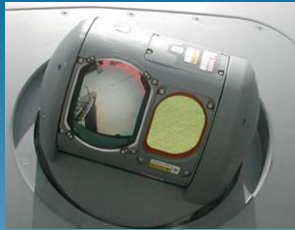
MILSATCOM Systems

Environmental & Space Science Satellite Systems

Directed Energy Systems

Strategic Space Systems

Electronic Systems



Radar Systems

C⁴ISR

Electronic Warfare

Naval & Marine Systems

Navigation & Guidance

Military Space

Government Systems

Information Systems



Command & Control Systems

Network Communications

Intelligence, Surveillance & Reconnaissance Systems

Enterprise Systems and Security

IT/Network Outsourcing

Intelligence

Federal, State/Local & Commercial

Homeland Security & Health

Shipbuilding



Naval Systems Integrator

Surface Combatants

Expeditionary Warfare Ships

Auxiliary Ships

Marine Composite Technology

Coast Guard Cutters

Commercial Ships

Nuclear Aircraft Carriers

Nuclear Submarines

Fleet Maintenance

Aircraft Carrier Overhaul & Refueling

Technical Services



Systems Support Base and Infrastructure Support

Range Operations

Maintenance Support

Training and Simulations

Technical and Operational Support

Live, Virtual and Constructive Domains

Life Cycle Optimization

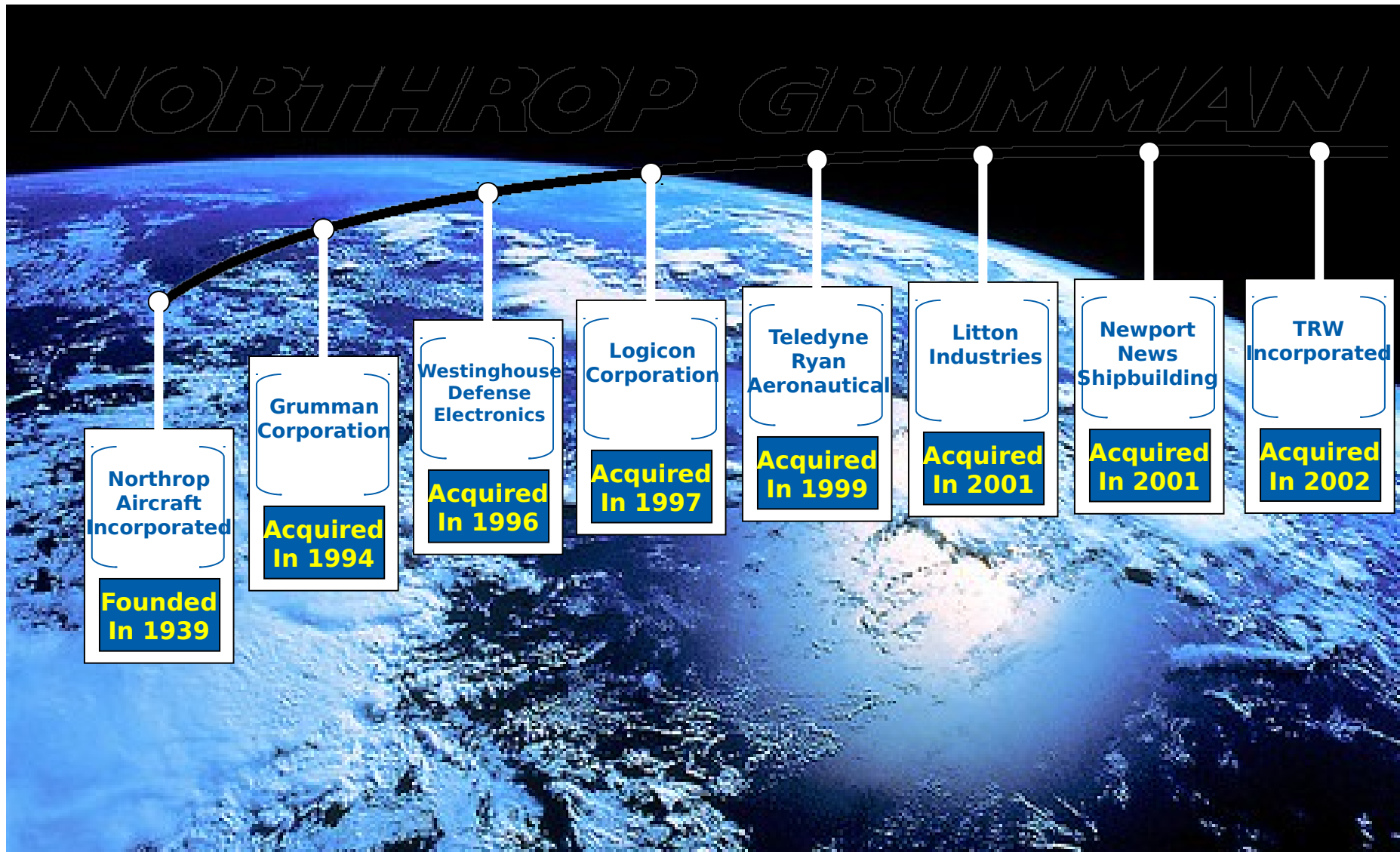
Performance Based Logistics

Modifications, Repair and Overhaul (MRO)

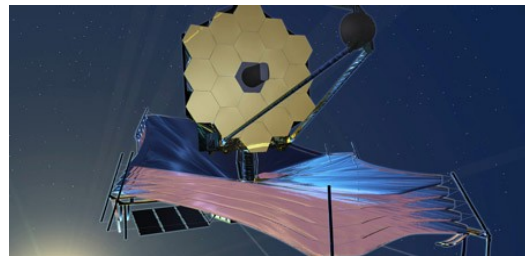
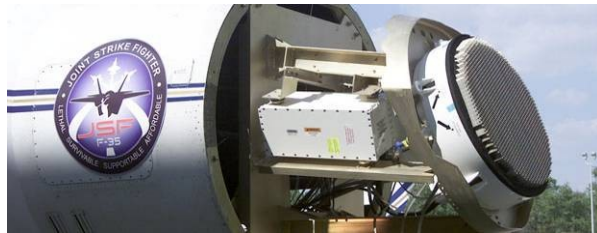
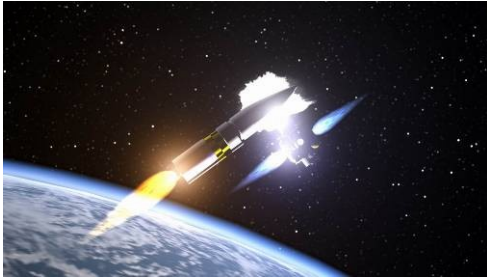
Supply Chain Management

Lead Support Integrator (LSI)

Northrop Grumman Heritage



Northrop Grumman - Diversity of Products



CCMS Objectives

Parts Management

Objective

Increase Parts Standardization (common parts) and improve operational efficiency by:

- An integrated Engineering parts selection and control process to reduce parts counts, purchase orders, and improve supplier relations.
- An increased awareness during engineering development of the need to utilize standard parts along with an efficient system to facilitate personnel identifying those common / standard parts.
- An integrated **Engineering, Quality, Supply Chain, Product Support and IT Solutions** approach to reduce the internal total cost of ownership (TCO) within Northrop Grumman.

Strategic Vision

- Establish a Corporate Engineering Standards Group.
- Establish Sector Level Engineering Standards Organization.
- Establish Corporate Standard Parts Library (CSPL).
- Mil-Std-3018 (Parts Management) Compliant.

CCMS Corporate Leadership ...

Vice President
Space & Defense Products
CCMS Executive Lead



CEO



Corporate Vice President
Programs, Quality, & Engineering
& Engineering Utilization
Executive Lead

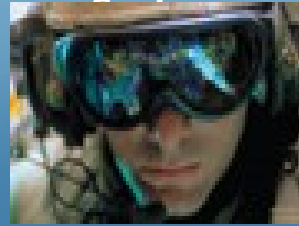
Aerospace
Systems



Electronic



Information



Shipbuilding



Technical Services



Enterprise - Wide Engineering Team Formed
Supply Chain, Enterprise Shared Services & IT Business Solutions Partner



Vice President
Corporate Contracts, Pricing & Supply Chain



Vice President
Enterprise Shared Services



Vice President - CIO
Information Technology Solutions



... with Highly Integrated CCMS Cross-Functional Level Team Delivering

Results

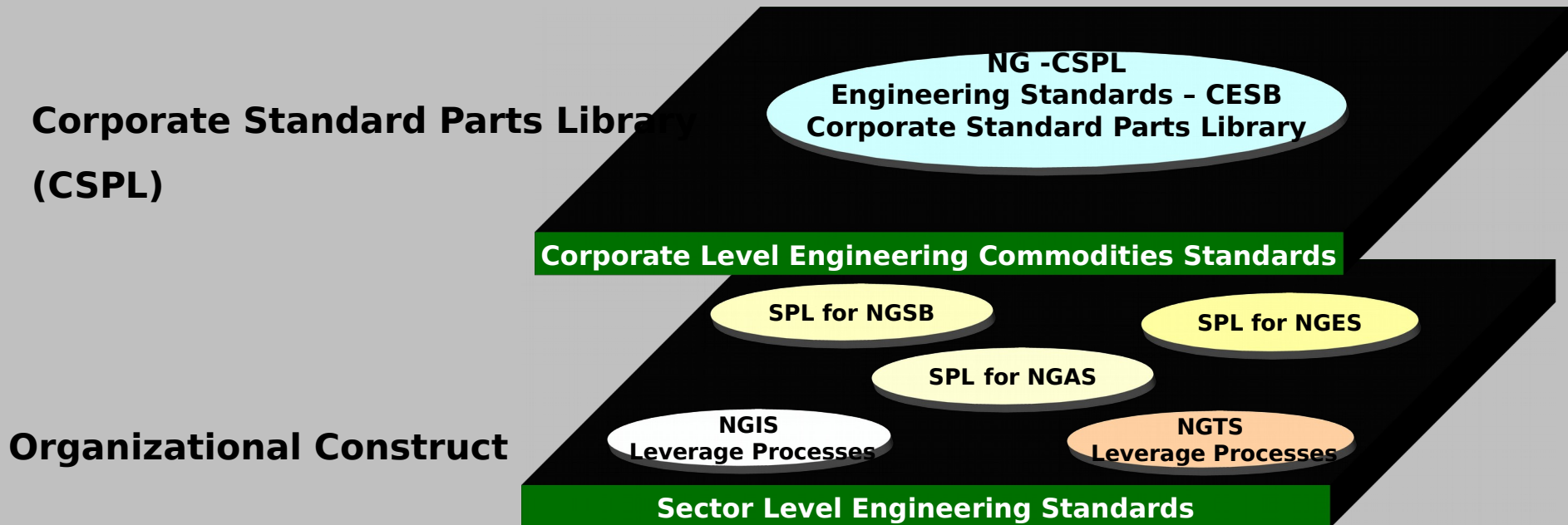
CCMS' Comprehensive Multifaceted Approach...

Corporate Standard Parts Library
(CSPL)



- CSPL Corporate database:
 - Database of standard parts to be used throughout the sectors.
 - Used by the Sector Engineering Standards organizations and Global Supply Chain/Procurement organizations.
 - Provides cross sector visibility of standards to enhance individual sectors' Standard Parts Lists (SPL) and Product Data Management (PDM) data.
 - and deploy on new development programs as well as legacy programs (where applicable)
- Governance through Corporate Engineering Standards Board (CESB) Provides a centralized repository of Common (Standard
 - Consists of Engineering Standards representatives from each sector.

CCMS' Comprehensive Multifaceted Approach...

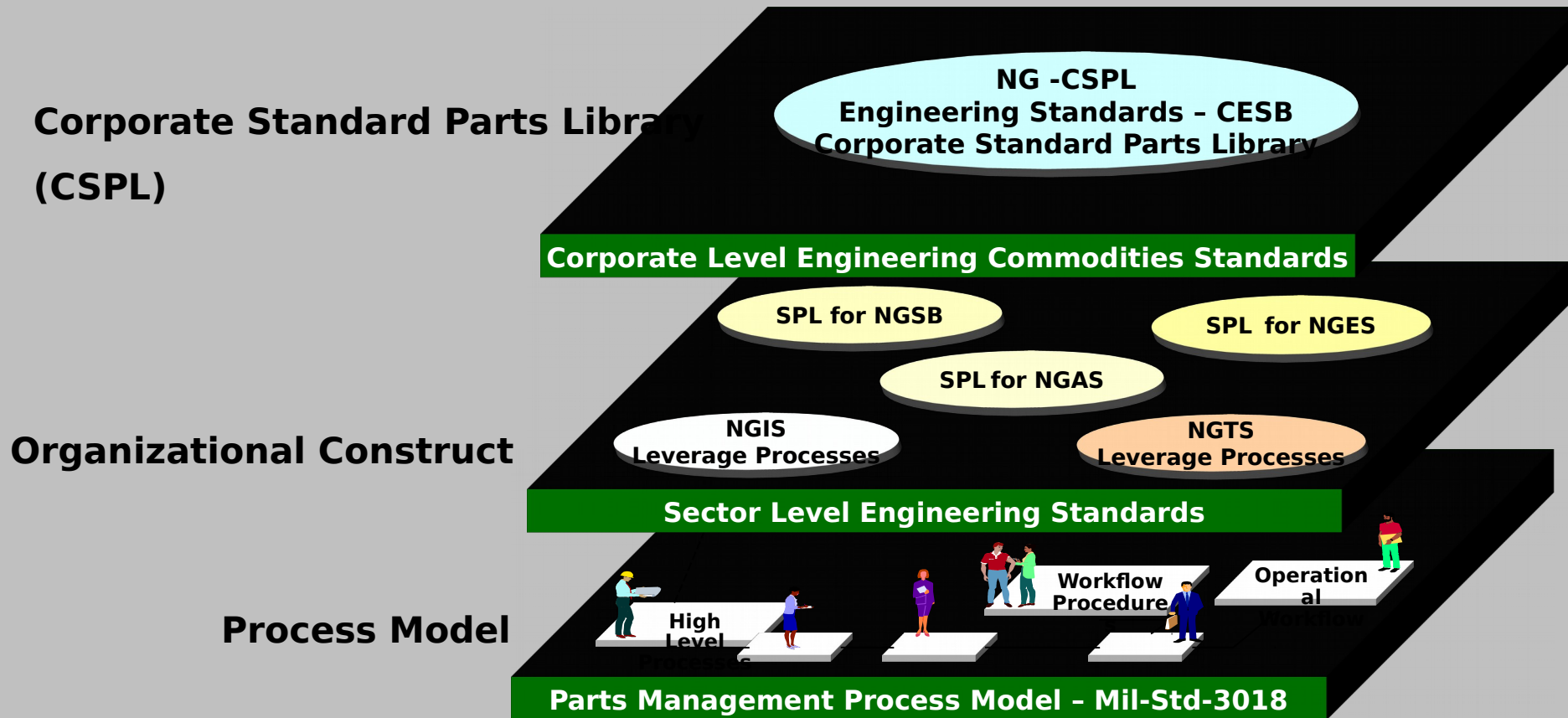


- Sector level initiatives:

- **NGAS established plan to institute an Engineering Standards Organization to support all sector programs.**
- **NGES established plan to institute Common Tools, Common Parts, & Processes for an Engineering Standards Organization to support all sector programs.**
- **NGSB established a 'Common Part Process Joint team'**
- **NGIS & NGTS will leverage processes, procedures, and capabilities developed during AS and ES rollouts.**

... Enhances Methodology for Implementing Common (Standard

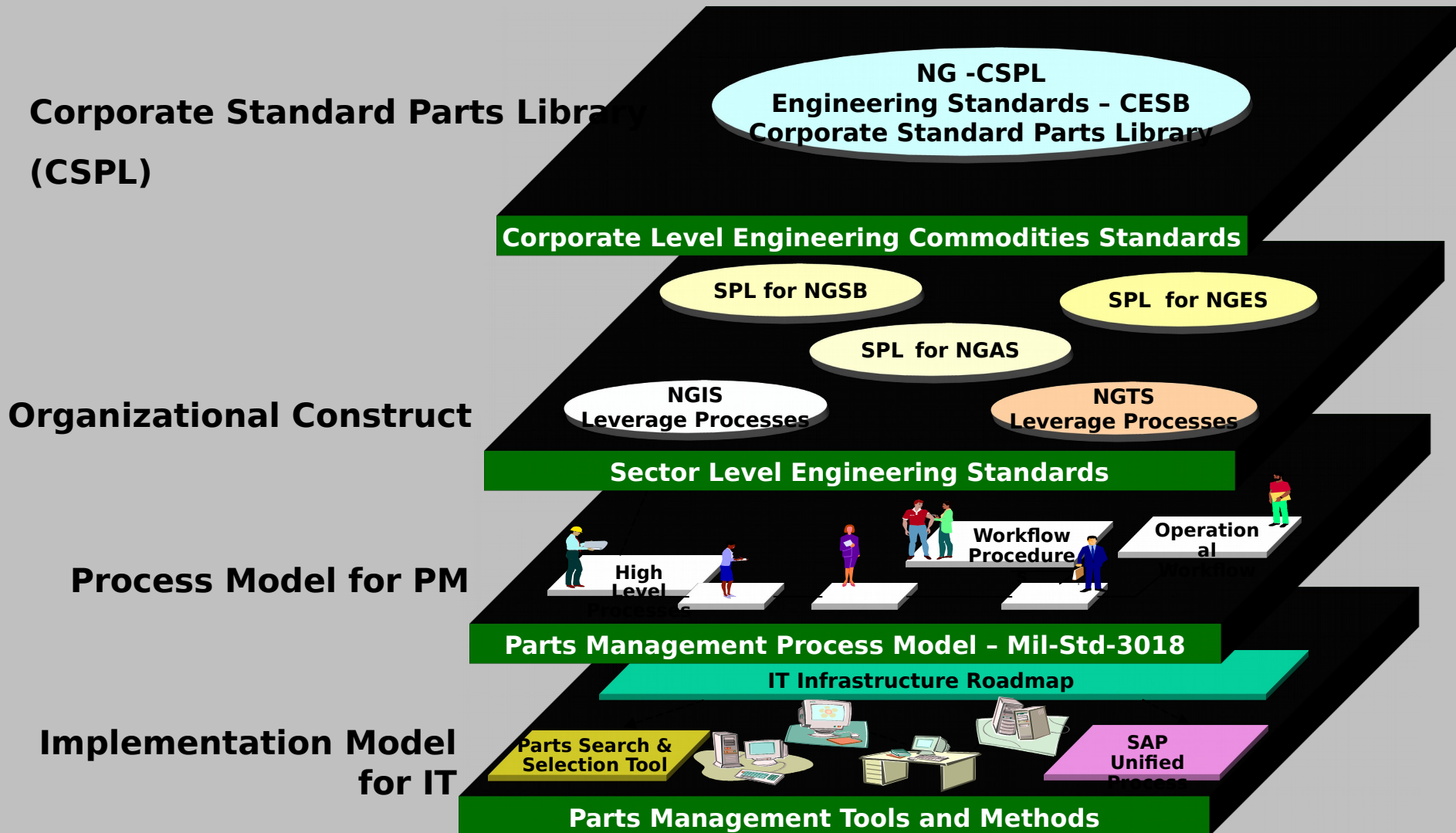
CCMS' Comprehensive Multifaceted Approach...



- **CCMS provides a forum across the enterprise to share best practices and processes in support of the parts management process.**

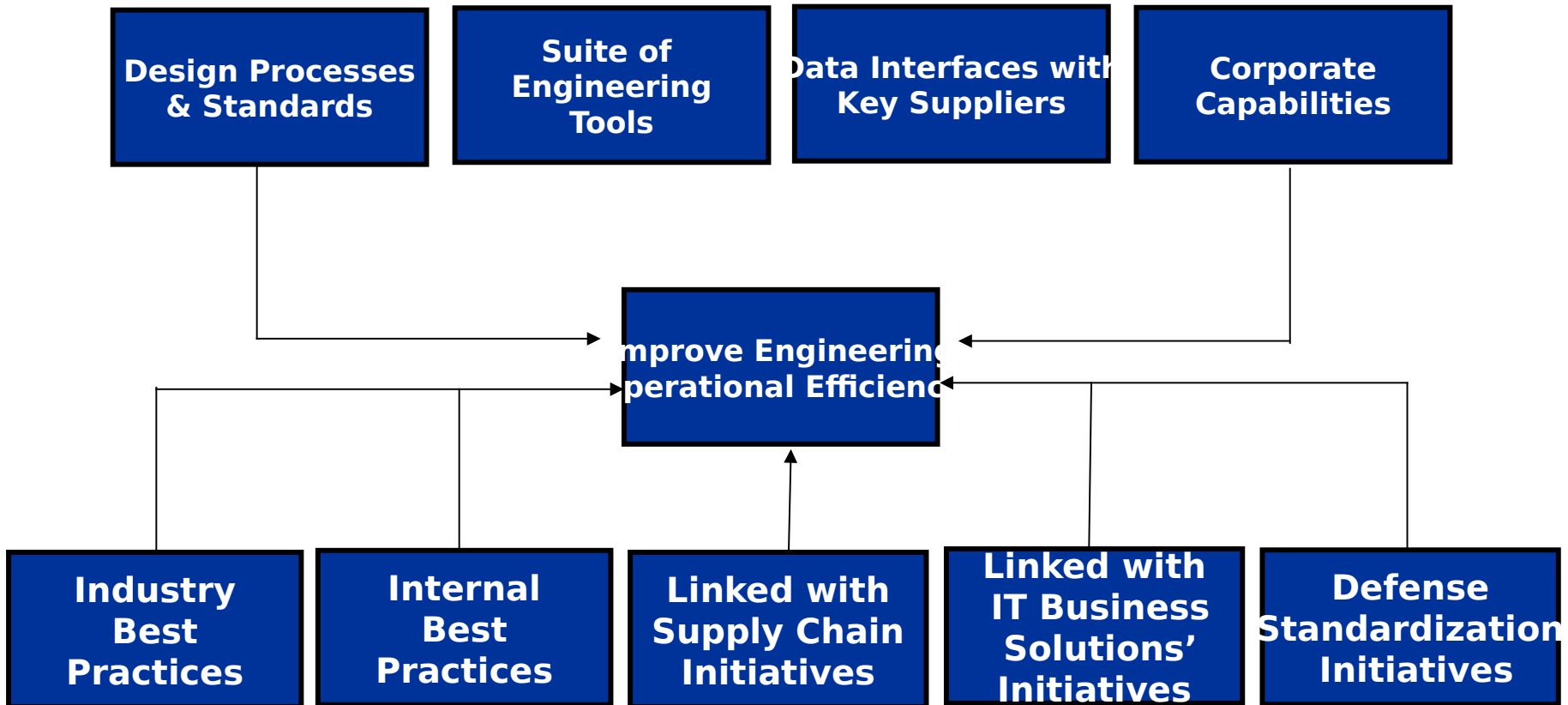
... Builds Key Partnerships & Relationships

CCMS' Comprehensive Multifaceted Approach...



... Creates an Engineering - Knowledge Sharing Capa

NGC's CCMS initiative Leverages Engineering Utilization...



... to Improve Engineering Operational Efficiency at the Design & Development phase during Parts Selection

Closing Comments



Corporate Commitment for CCMS Initiative
Process Excellence & Team Collaboration
continues to be key elements for success:

- Fosters Standardization by promoting commonality of parts / processes.
- Enhances common understanding of the benefits of Parts Management.
- Promotes Knowledge Sharing Capability.
- CCMS Initiative is a win-win solution for NGC and our Customers.



People are Key - working jointly across the Corporation



NORTHROP GRUMMAN DEFINING THE FUTURE™

NORTHROP GRUMMAN

